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DECEMBER, 1913

Agricultural Education

Rural Education Conferences, 1913

- I. At Ontario Educational Association, Toronto, March 26—28.
- II. At Inspectors' Short Course, Ontario Agricultural College, August 4—8.



INSPECTORS AT SHORT COURSE, GUELPH, 1913

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NOTE:—(1) One copy is sent to the Principal of every graded school; it is requested that he circulate it amongst his staff.
(2) Two copies are sent to every rural school. One copy is for the teacher and should be retained in the school. The other copy is for use in the School Section. PLEASE KEEP IT IN CIRCULATION.
(3) Teachers leaving their schools in June should see that all Bulletins are gathered together and left safely where successor may secure them.

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- II. WHY I BELIEVE IN AGRICULTURE IN THE SCHOOLS**—Inspector Atkin.
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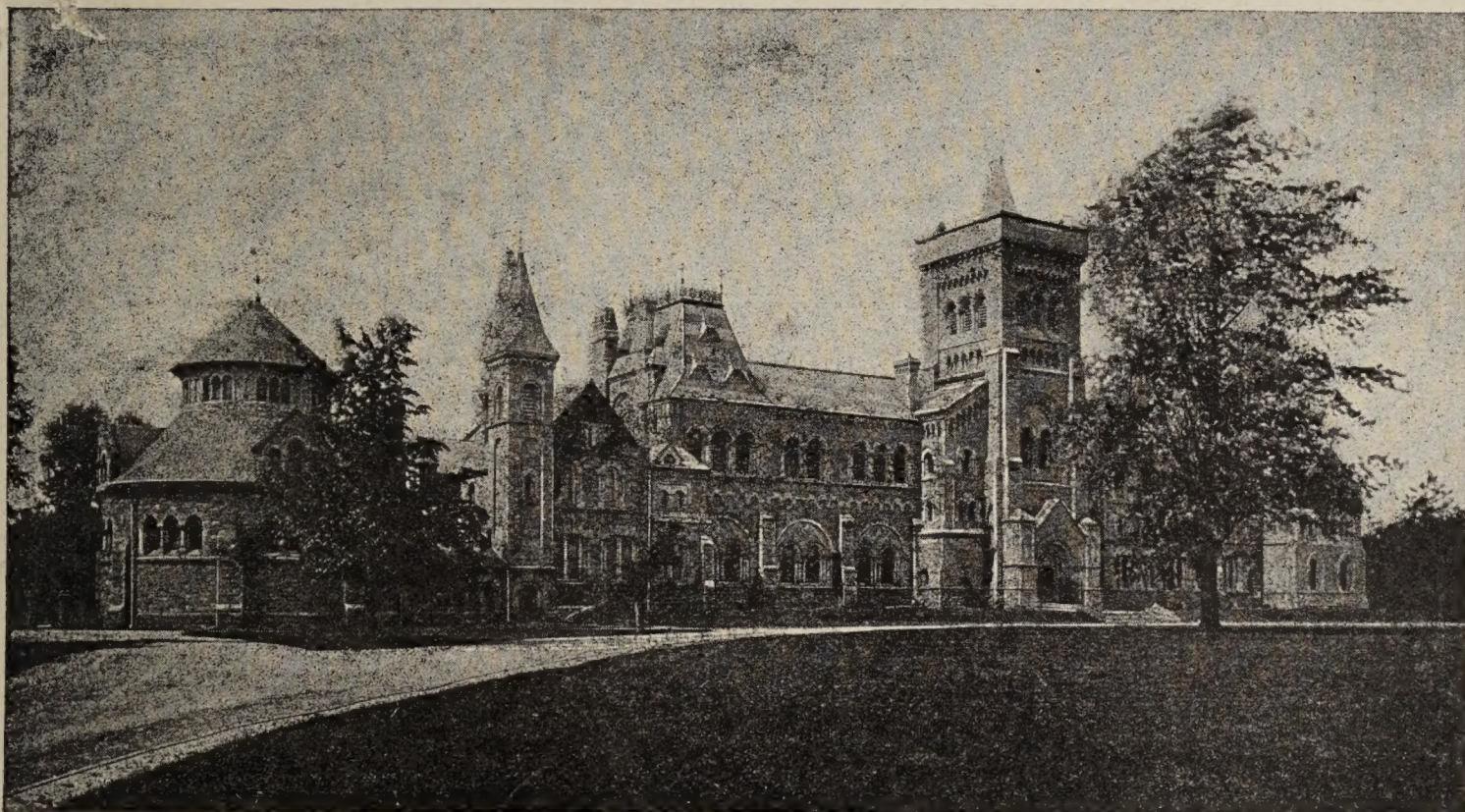
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PART 1

AT ONTARIO EDUCATIONAL
ASSOCIATION, TORONTO

MARCH 26th—28th, 1913



THE ONTARIO EDUCATIONAL ASSOCIATION holds its meetings every year on Tuesday, Wednesday and Thursday of Easter week at the University of Toronto. This year the work of the Rural Schools was given considerable attention in the afternoon sessions of the Public School Department. A large number of rural teachers, as well as others, attended these meetings. It is expected that rural school interests will be represented in the 1914 programme also.

I.—THE NEW RURAL LIFE

REV. JAMES ANTHONY, AGINCOURT, YORK CO.

There is a new rural life. The day has gone when anyone regards it as a reproach to live in the country. The telephone, the railway, rural free delivery, the newspaper and the library, together with the enterprise of country people who have had faith in the possibilities of rural life have had their influence in bringing to rural Ontario the best in the city and town without the corresponding disadvantages of urban existence. Not that those who believe in the country regard their work as done. No, for country people "the best is yet to be"! The struggle has just begun, and the leaders, in bringing about the end desired, must be the press, the pulpit, and the public school teacher.

There are perils to be faced. The first of these is the blinding power of the present material prosperity. There is the menacing blight of the cares of the world and the deceitfulness of riches. The days were in Ontario when a man regarded his farm as his home. Now he regards it as his mine. He was proud of his place as a freeman in the commonwealth. Now his pursuit is money. He was glad to take a part in the healthy activities of the neighborhood. Now the bond of union that he regards as of supreme importance is the cash nexus. He was proud when his boy became a doctor, a lawyer, a farmer. His heart now swells when his child amasses money.

This peril that, if unchecked, will eat out the best of our national life, can be best combatted by showing the boys and girls of Ontario that no man is revered in history because he was a millionaire. Riches have ruined men and nations. They never made either a man or a nation great. Who asks if Mackenzie or Macdonald were wealthy? Who cares whether Borden or Laurier are millionaires? No, these men are of worth and they command the esteem of Canadians in proportion to their integrity and their power to serve. Has Shakespeare's poverty or wealth anything to do with the fact that he is the teacher and inspirer of men of every country and of every clime? History and biography demonstrate that a country's jewels are its boys and girls. It is the teacher's opportunity to demonstrate this.

The spirit of the new rural life as it is interpreted by its highest prophets is a fine combination of reverence and free inquiry. There is a new sense of power. Electricity has made the country a new place to work

in. Pests are now understood, and the means of their conquest are in the farmer's hands. No man who knows his business talks of luck; he does not regard his lot as being imposed upon him. In other words, he has caught the scientific spirit. This same spirit has taught him his limitations and his dependence upon world forces and spiritual entities.

The new rural life is intensely practical. It has no use for dreamers. Dreamers give the world nothing but empty dreams. Nature study must lead in the direction of better control of nature. The cultivated field is as interesting as the wilderness any day. The orchard requires attention as well as the unbroken forest. Poets must, if they would be heard, interpret life as it is to-day. The church must fit men to live in Ontario as well as in New Jerusalem. A man's worth to the commonwealth is considered to be in proportion to his power to serve. It is the teacher's high privilege to make all this clear to the boys and girls that are soon to make our laws.

II.—WHY I BELIEVE IN AGRICULTURE IN THE SCHOOLS

INSPECTOR ATKIN, ELGIN Co.

The following is a synopsis of Inspector Atkin's address:

I believe in Agriculture in the schools because:

1. Agriculture is the foundation industry in Ontario.
2. It appeals to a child's every-day observation and he learns in the only way he can, viz., in terms of his own experience.
3. Through the teaching of agriculture alone can a community-interest be established.
4. Pleasure in school books is thereby developed.
5. It induces regularity of attendance.
6. It gives opportunity for experiments and induces personal investigation, leading to a consciousness of cause and effect.
7. It develops sympathy and a taste for the beautiful.
8. It cultivates habits of industry and promotes morality.
9. It raises the agricultural status and makes for boys wishing to stay on the farm.
10. Through the teaching of agriculture there will be developed a strong, intelligent, prosperous, contented and happy rural population, the nation's chief asset.

III.—THE COUNTRY SCHOOL TEACHER'S QUALIFICATIONS

INSPECTOR TOM, HURON Co.

Early Training.—The training and environment of a child during the public school period have a permanent influence on the character and work of the child's after life. Those who have been brought up in the country and received their public school education in a rural school make the most successful rural school teachers. They are familiar with ungraded schools, understand rural conditions, and are in sympathy with the pupils and the parents.

Having been accustomed to country life, such teachers are likely to remain in one position for some years, which is absolutely necessary to secure the best results. Few teachers brought up in a town or city will remain in a rural section if a position can be secured in an urban school.

Certification.—Under present conditions it is impossible to retain the services of an efficient first or third class teacher for more than one or two terms in a rural school. This being so, rural School Boards should engage, whenever possible, a second class teacher, preferring one who has taught before attending the Normal School. As in every other walk of life, the most successful teachers are those who began at the bottom. The teacher who taught before completing the Normal course will get the most out of the Normal School training.

Personal Qualities.—The personality of the teacher means a great deal to the pupils and parents. It means success or it means failure. It is difficult to explain why some teachers secure perfect discipline, rapid progress and thorough work so easily, while others with higher academic and professional certificates are complete failures.

To perform her whole duty the teacher requires patience, energy, enthusiasm, executive ability and a love for her work. To manage and instruct six to ten classes, to supervise the heating, ventilating and the care of the school premises, to educate her pupils physically, mentally and morally, and to make her influence a permanent benediction to her pupils, require the very highest qualifications.

She must be a student as well as a teacher, doing some general reading every day. Her mind and body require regular rest in order that her teaching and her management may be the best. In nine cases out of ten the teacher makes her own success and the success of her pupils. If she be quick, pleasant, tactful, diligent and enthusiastic, the good will and co-operation of the pupils and parents bring success, and the improved condition of the school will be shown in the progress, standing and discipline of the pupils and in the neat and attractive appearance of the classroom, school house, grounds and garden.

IV.—THE GOOD EFFECTS OF GARDENING

MISS LENA M. FIELD, S.S. 3, GAINSBORO TP., SILVERDALE P.O.,
LINCOLN Co.



Association with the handiwork of the Creator.—As it was when “the Lord God put the man in the garden to dress it and keep it,” so now when man lovingly works hand-in-hand with nature, he finds in the marvel of growing things the Creator of them still “walking in the garden.” The close association with the Divine handiwork constitutes the first argument.

The Joy of gardens.—In the second place, school gardening is a means to the cultivation of a primitive interest capable of reaching the heart of every child and becoming a lifelong source of pure delight. The home garden ordinarily has failed to do this because the children had to hoe father’s potatoes, and people forgot that with the child, “mine” is a magical word. The second year of our garden I found over ninety per cent. of the children had their own plots in the home gardens, most of them for the first time. So we say the children have a right to garden if only because “every garden year scatters the seed of the perennial joy-flower in the fertile soil of children’s hearts.”

Disciplinary effect—Social training.—An ownership in a public garden is fruitful of some social training, giving them a bit of dignity and responsibility, teaching them something of the meaning of good citizenship, an individual interest linked in the public good, and providing them with ample opportunity to be helpful to one another. They do assist each other in a most happy spirit, and seldom are found quarrelling.

Character building.—If they are neglectful of their garden it silently witnesses against them—a reprimand that cannot be credited to the disagreeableness of the teacher. They learn that what you sow you shall reap. Mother Nature is a tattle-tale. The next year they do better. By owning something they learn to respect the property of others. Since

boys do not destroy the objects of their own interest, caring for flowers and trees becomes a means of helping to uproot that destructive element that sometimes figures too prominently in children's characters.

Influence on school grounds.—There is small pride in a garden beside a neglected, barren school ground. Part of the garden work proper may be carried out in flower borders along the walks and around the school and fences. The caring for the trees, shrubs and lawn is considered part of the work. The garden grants may be applied on the expense of improvements.

Influence on the home activities.—It is quite fair also to say that the work of the children at school becomes almost a challenge to their parents to make better gardens and grow some flowers about their homes.

General effects on school life.—The carrying on of a garden establishes a common ground for home and school interests. It helps to keep the daily work out of the monotonous routine into which it is easy to drop. It provides an opportunity for relating arithmetic, composition, drawing, geography and manual training with the pupils' personal needs and activities.

Its effect on the study of Nature.—Nature study, the richest subject of the course, takes on a practical form when modified and assisted by the presence of a garden. Obviously they have before them a field of observation for the study of plant life, from the seed to the ripened specimen, with a motive for studying it supplied. They have, what is not quite so obvious, a world of insect life—the frequenters of the garden. The study of these has besides an economic aspect.

Its effects on the study of Agriculture.—After all the great purpose of gardening is to provide the boys with experiences that will be some material help in the line of what is to be their life work. The principles of good gardening and agriculture are largely the same. The garden supplies an incentive of interest. **Many agricultural problems can be demonstrated there.**

Meeting the rural problem.—By this departure from established customs we show to thinking people the inefficiency of our rural schools, and we hope thus to open the way for further innovations. Even now we are able to awaken an agricultural interest that ought to serve the rural communities by giving to its future farmers greater respect for their work and help in checking the attraction of business and the professions—to turn the tide the other way.

Summary.—And so we say, for the joy and marvel it adds to life, for disciplinary effects, improvement of school grounds and home lawns and gardens, for its vitalizing influence on school life and chiefly for the assistance it brings to the study of nature and agriculture, and for meeting rural needs, give us the school gardens!

V.—SCHOOL GROUND IMPROVEMENT

F. J. NEWHOUSE, Esq., U.S.S. 1 CLINTON AND 2 LOUTH, VINELAND,
LINCOLN Co.

Before any improvement of this nature takes place someone must have a mental picture of what the school grounds would look like when the improvements have been completed. If the teacher is the one to have this "vision" he should not attempt its fulfilment alone, but should rather create a feeling along this line among his trustees and ratepayers.

The best way to create such a feeling is by having the people see grounds that have been made beautiful, but as this is not always easy to accomplish the next best way is to have pictures and lantern slides, colored if possible, for the people to look at. Nothing makes people feel like growing flowers so much as seeing them grow, and the next greatest incentive is the colored pictures of flowers.

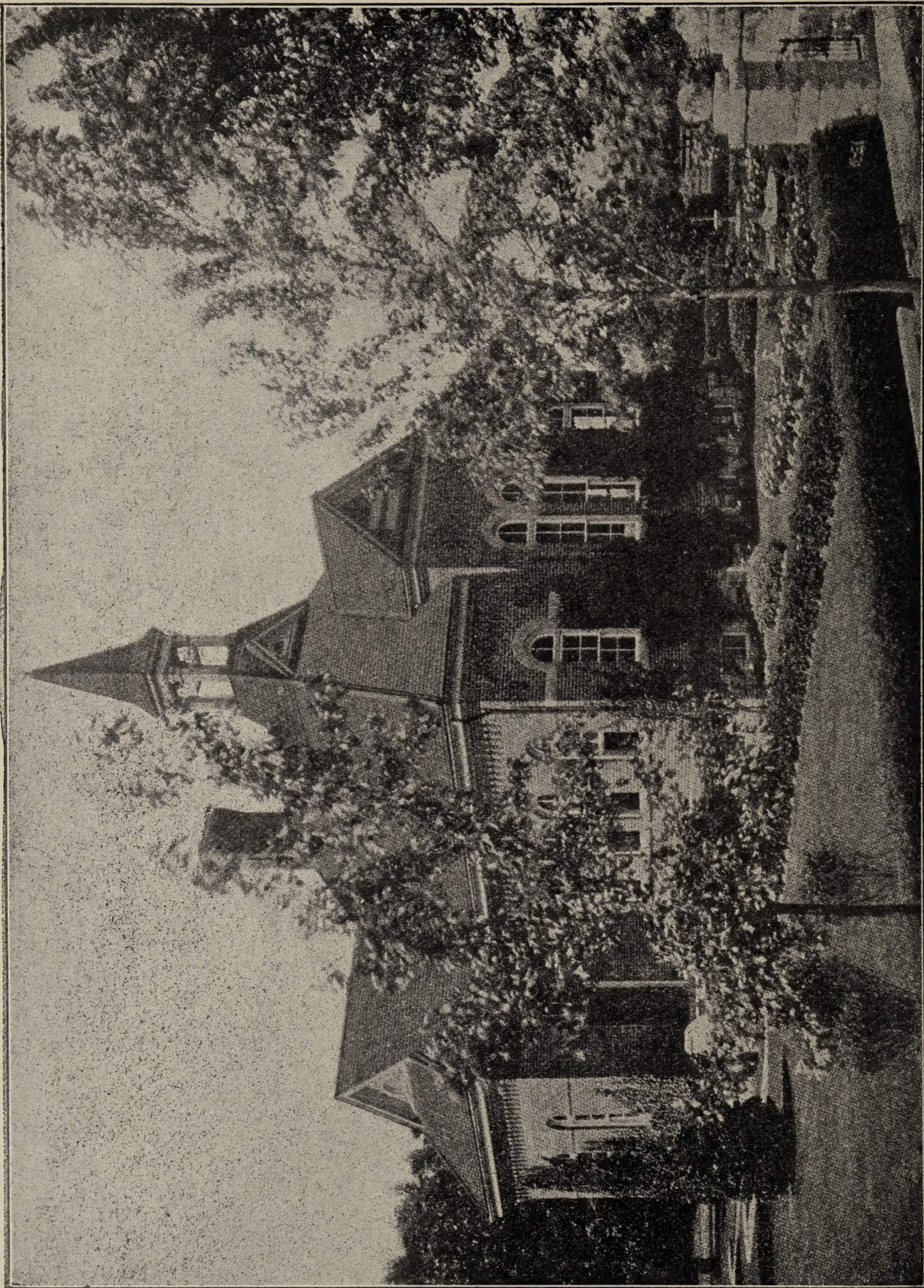
The grounds should be graded. Grass is nature's first decorator, but even grass cannot thrive on a soil composed of coal ashes or clay from basement or well. Then the ground should have a top dressing of good soil. If we get no more than a good lawn we have made a vast improvement.

Having the lawn in front of the schoolhouse we should give our attention to the fence. If none is needed leave the grounds open to the road, but if stock is allowed to roam make the fence a substantial one, not one with wire points easily bent and broken. Let the gate posts be massive, made either of cut stone, cement block or field stone cemented ornamentally together—something to impress the passerby with the idea that it is a public institution. The gate should be iron and very substantial, as children are apt to forget that they should not swing on it.

If hedges are used, do not put them in front but rather at the sides of the yard. Privet makes a much better hedge than spruce, as the latter, when injured, cannot be replaced readily, while the privet can easily cover a broken place.

Most trees are suitable for school yards, and any of our pines, maples, spruce, cedar and elms make ornamental growths, but most of these trees should be kept around the outside of the playgrounds, with a few not directly in front but slightly to the sides of the front lawns. When we consider that we can buy ornamental shrubs at from three to five dollars per dozen, it is a shame that so few of our schools have any of these shrubs. The hydrangea, weigelia, deutzia, spireae, and many others soon come into blooming. These should be planted in clumps so that they may be kept cultivated and be manured from time to time. They will not thrive if sod is allowed to choke them.

Then in matters of paint we can show great improvement. The choice of colors in painting our homes is an important matter, but in many cases the school house is painted the traditional red, brown or blue. These colors have a depressing influence which can be overcome if we use the same care with respect to the school as we do with our homes.



Rittenhouse School, Jordan Harbor, Lincoln County.

If the school be of stone or brick, Boston ivy growing on the walls gives a pretty covering, and has a cooling influence in the hot summer days. If the school be a frame one, then Virginia creeper can be trained up the side and strapped fast.

Flowers of any sort add to the appearance of the school. Perennials suit best where space is limited, but some of the hardier of our old-fashioned annuals always give good results for the care taken. Have the seeds planted in boxes in the windows early in the year and then the seedlings will be large enough to look after themselves fairly well when planted out and will be in bloom much earlier than if the seed were planted in the open.

VI.—ORGANIZED PLAY IN COUNTRY SCHOOLS

MRS. E. A. WARREN, S.S. 12 SCARBORO, DANFORTH P.O., YORK CO.



It is as impossible to organize play in a school yard with nothing to work with as to organize any other school work without equipment.

If high school boys need a gymnasium to develop their bodies, why not the boys who never reach the high school, for the person who has a poor education needs a strong body if anyone does.

I strongly recommend appliances for sport in the playgrounds of our country schools, to be substantially built, safe and durable, and enough of them to afford every child a chance to use them during the recreation periods. I never have had any trouble arising from the playground.

Our rural school grounds are usually the most neglected and uninviting places in the whole land, with no attraction whatever to win children or anyone else to them. Too often country children have no form of amusement at school except rudely chasing each other about the yard. Is it any wonder children dislike to go to school? By having proper appliances for play the pupils could have more recreation in the open air, and benefit both themselves and the teacher.

A set of swings provided with steel ropes erected in the playgrounds will do more to keep the children in school than all the truant laws that can be made in a lifetime. Rope swings are a great help, but ropes wear out and then an age of endless waiting follows before any more can be obtained.

From well-directed play pupils will benefit mentally, morally and physically, and I believe their parents will financially, if we take into consideration the cost of the sickness for which the schools are sometimes responsible.

VII.—THE COUNTRY SCHOOL LITERARY SOCIETY

MISS C. E. HORNING, S.S. 9, SALTFLEET TP., STONEY CREEK,
WENTWORTH Co.

Ours is not strictly a school society, but is conducted by the people of the section with some from neighboring sections. We think it is an improvement on the regular school society. Being held in the evening, practically every family is interested, and the parents attend with their children, as some would find it hard to do so if the meetings were held in the afternoon.

The society is closely related to the school, and the pupils are given abundant opportunity for taking part in the programmes. They have a larger audience than they would have at school, and put forth greater effort in preparation. They have not only the help of their teacher, but the example of others who are their superiors in literary work in the persons of the officers and speakers provided during the term.

The teacher advises her pupils in the choosing of material, and selects for them sometimes nature talks, sometimes recitations or songs according to talent. Some selections are sufficiently difficult that they require a great deal of preparation, and here, too, the pupils seek assistance.

As the children became enthused over the work, we started a school society to supplement the larger one. Here the children do their debating. When we had our last debate six of them, some third and fourth class pupils, got on the platform with nothing but headings for notes and gave us very good addresses. And they are no more talented pupils than are to be found in any average country school.

A School Literary Society may seem somewhat remotely connected with the subject of Agriculture, but our conception of the subject is somewhat broader than its name implies. It stands to us as a means toward the end of giving country pupils such a love for country life that there will be no dearth of farmers in the years to come, but that they will be a class of intelligent and capable men with a knowledge of and pleasure in their work, feeling within themselves the power to think, speak and act among their fellow men. We believe that the Literary Society contributes largely toward that end.

VIII—OUR NEW SCHOOL

MISS ELIZABETH CRONE, S.S. 1, SARNIA TP., MANDAUMIN P.O.,
LAMBTON CO.



The Old and the New Schools in S. S. No. 1, Sarnia Township, Lambton County.

I suppose many of you who have taught in the country have had the experience, at some time, of teaching in an old frame school, painted once upon a time a reddish brown, set in the middle of an undrained yard, the most noticeable features of which were mud in the spring, hay in the summer, burs in the autumn, and two little round flower beds in front, in which, for some reason, flowers refused to thrive. Inside were a hall with two entries and a class room, with woodwork painted, also once upon a time, a dull grey, the color of a rainy day in November, and with about the same effect upon one's spirits; plastered walls, shiny wooden blackboards, a floor with wide cracks to hold the dust, windows on three sides and a box stove in the centre.

If you have taught in a school like that, you will remember the winter mornings when the children tried to work, crowded together around the stove, your efforts to ventilate the school at recesses and noons, and the first morning of each term when the floor looked startlingly clean and the rest of the school looked worse in comparison.

That was our old school. For some years there had been talk of a new school; with encouragement from the Inspector the talk suddenly became more definite. Though at first there seemed to be a good deal of opposition, by the time the ratepayers had their second meeting, nearly everyone wanted a new school and wanted a good one.

The school was built a year ago last summer. The children were very much interested in the process of building. To each one it was *his* school going up.

As it neared completion we began to hear rumors of a school opening. I might say that before this we had been considered a very unsociable section; for years we had had nothing but the annual picnic, and many

of the people did not attend that. But enthusiasm over the new school seemed to awaken interest in the social life of the section. The school opening was a wonderful success. We invited all the ex-teachers and ex-pupils, and many came, besides nearly every man, woman and child in the section. We had a banquet in the old school, which had been cleaned and decorated after the desks were removed, and the programme was given in the new school. We had accounts of school life in pioneer days from men who had gone to school in the old log school house, the first in the district, addresses from all the ex-teachers present, one of whom presented a bell to the school, and an address on Agriculture and School Gardening from the Inspector. That was the beginning of Agriculture in the school. Every one seemed pleased with himself and everyone else that evening, and many asked that it be made an annual event.

The school is a substantial, red brick building, with a teacher's room and front entrance to the south, a long hall and cloak rooms on the east and the class room on the north. The lighting is from the north and from the pupils' left. The walls and ceiling are metallic lined, the walls being painted pale green with the woodwork fawn, in shades that are both pleasing and clean looking. The walls are hung with good pictures, purchased with money which the children earned at the Fall Fair. The floor and desks are of maple and there is plenty of slate blackboard. The heat and ventilation are about perfect; we use the Waterbury system. The cloak rooms are provided with basins and mirrors, and most of the children bring their own towels; each has his own drinking cup.

We have found new uses for the teacher's room this year besides for the teacher's own use. One of the rural school teacher's problems is to find time for everything. In the teacher's room Class II. practice their multiplication table, the best pupil acting as teacher; Pt. II. practice adding, an older pupil who has finished her work hears Pt. I. or II. read a lesson in review or some times attempts a new lesson, using a small blackboard we have in the room. The results are good. The older pupils use it also for practice in reading aloud.

Last December we had a Public School Examination. The Director of Elementary Agricultural Education was present and gave an address. Eight or nine of the older pupils made speeches, mostly on agricultural topics; a former teacher furnished music with his Victrola, lunch was served, the teacher's room being used for a kitchen, and we all had a good time. The gathering was well attended by men as well as women.

Mr. McCready suggested in his address that we make the school surroundings look as well as the school, and shortly afterwards one of the rate-payers suggested to the trustees that we have a bee to plough and level the school grounds and plant trees. Last year we planted a few vines and bulbs, kept the grass cut in front of the school and had a fine bed of Phlox Drummondii. The school garden, just outside the grounds, was a success, though this year we intend having it more experimental with part of the practical work carried on at home. We intend having a Poultry Club and probably a Potato Club. With pupils and parents all interested we believe we can make the work successful.

IX.—OUR SCHOOL FAIR

MISS ADA V. NEELANDS, S. S. 19, KING TP., NOBLETON P.O., YORK CO.



Our School Fair was held the beginning of October, and one of the chief things exhibited was the vegetables from the plots. The V Class had grown sweet corn as their special vegetable, the IV. Class onions, the III. Class beets, the II. Class carrots, and the I. Class popcorn. Prizes were offered besides for the best collections of vegetables grown in individual plots, for poultry, apples, preserves, pickles, bread, cake, sewing, essays on "How I Grew My Plot," drawings of maple leaf in autumn tints; products of the school experimental plots of barley and mangels; flax, sugar cane and peanuts were displayed also. The farmers had had quite a discussion at the village as to what was the best kind of mangel seed, so we had them bring the different kinds, and these were tested in the school garden.

The exhibits were placed in the Junior room, which we had decorated with autumn leaves, pumpkins and sunflowers. While the judging was being done by Inspector Mulloy, Mr. J. C. Steckley, Agricultural Representative, and two members of the Women's Institute, the visitors were interested in examining the drawings, essays, stencilling and letters from the children's comrades in "The League of the Empire."

The prize money was contributed by the members of parliament, would-be members of parliament, township councillors, the local doctors and the Women's Institute. Simmers, the Toronto seed merchant, gave us a collection of bulbs. Once the people saw we intended to make the fair a success we had no trouble in securing funds. The Secretary of the School Board gave those from whom he asked the subscriptions the impression that they were being specially favoured. He said, "We aren't asking everybody."

The Women's Institute judged the plots for four months. A plan of the garden was put up in the village post office and each month the prize plots were marked. This proved quite a stimulus to pupils to care for their plots during the holidays.

After the judging was over addresses were given by several speakers. This was followed by the reading of the prize list and the distribution of prizes. We had intended to have sports, but the day proved unfavorable. With the surplus prize money, in addition to what the girls had made selling flowers, we were able to afford one good picture for the school. Needless to say we chose a rural scene.

The School Fair, besides bringing our garden work to a happy ending, proved a stimulus to the children for this coming year. The less successful were heard to remark quite often during the succeeding days, "I tell you I'll manage my garden differently next year." The parents were pleased over the children's work. My seemingly dullest pupil carried off the best prizes. His parents' pride over his success made one feel it was indeed "worth while."

The School Fair also afforded us a means of bringing our work in agricultural teaching before the public, both at the fair itself and in the local paper. The Section as a whole were pleased with our efforts, and our visitors went away that afternoon more interested in the school and prouder of it than they had been for a long time.

X.—TEACHING AGRICULTURE IN A HALIBURTON SCHOOL

MISS F. M. PILKEY, S.S. 9, MINDEN TP., MINDEN P.O., HALIBURTON.



The Bee on Arbor Day.

Agricultural work in my school has centered around school-yard improvement and gardening.

When I began my duties at S.S. 9, Minden, I found opportunities lying before me for a campaign in school improvement. When the new school was built in 1905 the foundation of the old one was not removed. This, with a couple of dilapidated out-buildings on the hillside, presented a woeful sight.

My first move in the cause of betterment was to visit every home in the section, and draw the attention of the people to conditions, and solicit their support in an attempt to improve them. I suggested levelling the grounds, painting the school, erecting new out-buildings, agreeing to paint the school as my share of the work. We had a concert shortly after to raise money for the same.

On Arbor Day we had a bee. Twelve trees were planted, the children brought shrubs, one half the yard was ploughed, one of the ratepayers brought his stumping machine, and they removed three ugly stumps from the yard.

The soil was poor, so I went to one of the ratepayers and asked him if he would give us a few loads of fertilizer; he willingly consented and offered to haul it over for us.

We got seeds from the Schools' Division of the Experimental Union at the O.A.C. and instructions on the planting and cultivation of these. We worked earnestly and happily in our garden; but an early frost that fall spoiled what we had planned to exhibit at the Fall Fair.

Already the beneficial effects of our attempt at Agriculture in the school is apparent. Good fellowship has been promoted about school affairs. Kindlier feeling prevails between the people of the section. The school has become the recipient of many practical kindnesses from the patrons and men who were never known to give or do anything for the school are now generously assisting. The school has become a social centre and is known for miles around. The interest it has created has induced nine other schools to undertake school gardening and the teaching of Agriculture.

XI.—AGRICULTURE FOR CONTINUATION CLASSES

W. B. JOHNSTON, ESQ., B.A., PRINCIPAL CONTINUATION SCHOOL, WINONA.

In Mr. Johnston's discussion of this subject he argued for a more practical kind of education for the pupils, and showed the plan of work followed in his school in the indoor instruction and out-of-door work in the garden. He said:

"We have gone beyond the experimental stage and the school garden is as necessary a part of our equipment as are books or blackboards. We divide school gardening into two parts: (1) The practical work, and (2) the teaching of Agriculture. With the first is associated the related studies

of (a) Mathematics, (b) English, (c) Biology; with the second is associated (a) Geography and History, (b) Chemistry, (c) Physics, (d) Life and Man.

“ Besides class plots each pupil is assigned at least three rows, one in each of three beds, with a choice of radishes, carrots, lettuce, turnips or beets. Each pupil makes a collection of weeds, weed seeds and insects, and prizes are given at the Fall Fair for collections, and also for the best kept garden plots, accompanied by the best kept diary. Eighty per cent. of our school children did not know the common grains on a farm. We, therefore, have one plot devoted to the growing of Canadian grains.

“ We are careful to regulate the amount of labour in the garden to the physical ability of the pupil, believing that when school gardening becomes laborious it ceases to be educative. The knowledge pupils get in this way is self-acquired, therefor of permanent benefit. A knowledge of the Science of Agriculture makes the best foundation knowledge one can have while specializing in any other line.”

XII.—MARDEN SCHOOL AND SCHOOL MASTERS' RESIDENCE

P. H. BUCHANAN, Esq., S.S. 3, GUELPH TP., MARDEN, WELLINGTON CO.



Marden school is situated in Guelph Township, Wellington County, on the Elora Road, about four miles from the centre of the city of Guelph, and about two miles from the end of the city street car line.

The School Section was organized in the year 1842, Mr. Alex. Blyth giving the land for a school. The school, during its seventy-one years' existence, has been taught by seven teachers. A new school was built in

1876, thirty-seven years ago. The teachers in order have been Mr. Kennedy, who taught for twenty-nine years, Mr. Gibson for four years, Mr. Forester for two years, Mr. Nairn for six years, Mr. Amos for two years, Mr. McKenzie for nineteen years, and myself for nine years.

A beautiful stone residence was built in 1886, twenty-seven years ago; this has been occupied by Mr. McKenzie, who was superannuated, and myself. Thus you will see that this school has been taught fifty-seven years by three teachers. This tenure of position was without doubt owing to the teacher's residence.

The residence has with it a large garden and a stable. There is a nice lawn in front of the house, which is located alongside the school. The residence helps to make the school the educational centre of the section.

I feel sure that a teacher's residence is not only a great benefit but an absolute necessity in the rural sections of Ontario, if the people wish to obtain and retain male teachers. A grant by the Government to sections building a residence would be a decided step in the direction of rural school betterment.

I have reason to believe that a teacher's residence will help materially (1) to prevent the frequent change of teachers, (2) to secure regular attendance, (3) to make for rural-minded rural teachers.

XIII—THE RITTENHOUSE SCHOOL.

F. J. NEWHOUSE, Esq., U.S.S. 1 CLINTON AND 2 LOUTH, VINELAND,
LINCOLN Co.



The Rittenhouse School is located in Lincoln county, ten miles west of St. Catharines and one-half mile south of Lake Ontario. It is a two-

teacher rural school, and is under the patronage of Mr. M. F. Rittenhouse of Chicago, who has spent large sums of money in making it an ideal country school.

There is the main building where the senior classes meet. In this building there is a library, a class-room, a museum and a basement. The books in the library are valued at over two thousand dollars. The manual training classes are held in the basement.

The other building is a combination of one class-room (primary) and a teacher's residence. This residence is equipped with furnace, water and all modern conveniences, and is free. I might add that it is also heated free to the teacher. Connected with this building is a garden for the teacher's own use.

Across the road from the schools is a concert hall and caretaker's residence combined, while around this is a park for the use of the community. Large sheds are furnished for the sheltering of horses when persons drive to any entertainment or for pupils driving to school from a distance.

There is also a greenhouse where flowers are grown for the windows and school grounds. The seeds for the school gardens are planted and the seedlings transplanted in this house. The pupils have free access, and are taken in this house for lessons in agriculture and horticulture.

The school garden consists of nearly an acre. The front is devoted largely to floriculture—each child having a plot. Then there are large beds of flowers for plucking bouquets. The vegetables are grown in common, and are cultivated by horse power. Then there are peaches, strawberries, currants and grapes. Many cuttings of fruits and flowers are grown in the propagating plot; there is also a forestry plot.

The boys take manual training and the girls are taught sewing. No classes are enjoyed more by the pupils than these.

In 1913 nearly two thousand visitors registered, and we are safe in saying that over twice that number inspected our school and grounds.

XIV.—THE COUNTRY TEACHER'S REMUNERATION

T. A. REID, Esq., PRINCIPAL PUBLIC SCHOOL, OWEN SOUND.

It is impossible to consider the question of remuneration without a glance at the qualifications of the teachers and the relation of both on tenure of service, perhaps the greatest problem of the rural schools. We have now a condition of things in this Province that should give us the greatest concern and cause us to bend all our energies to find a remedy.

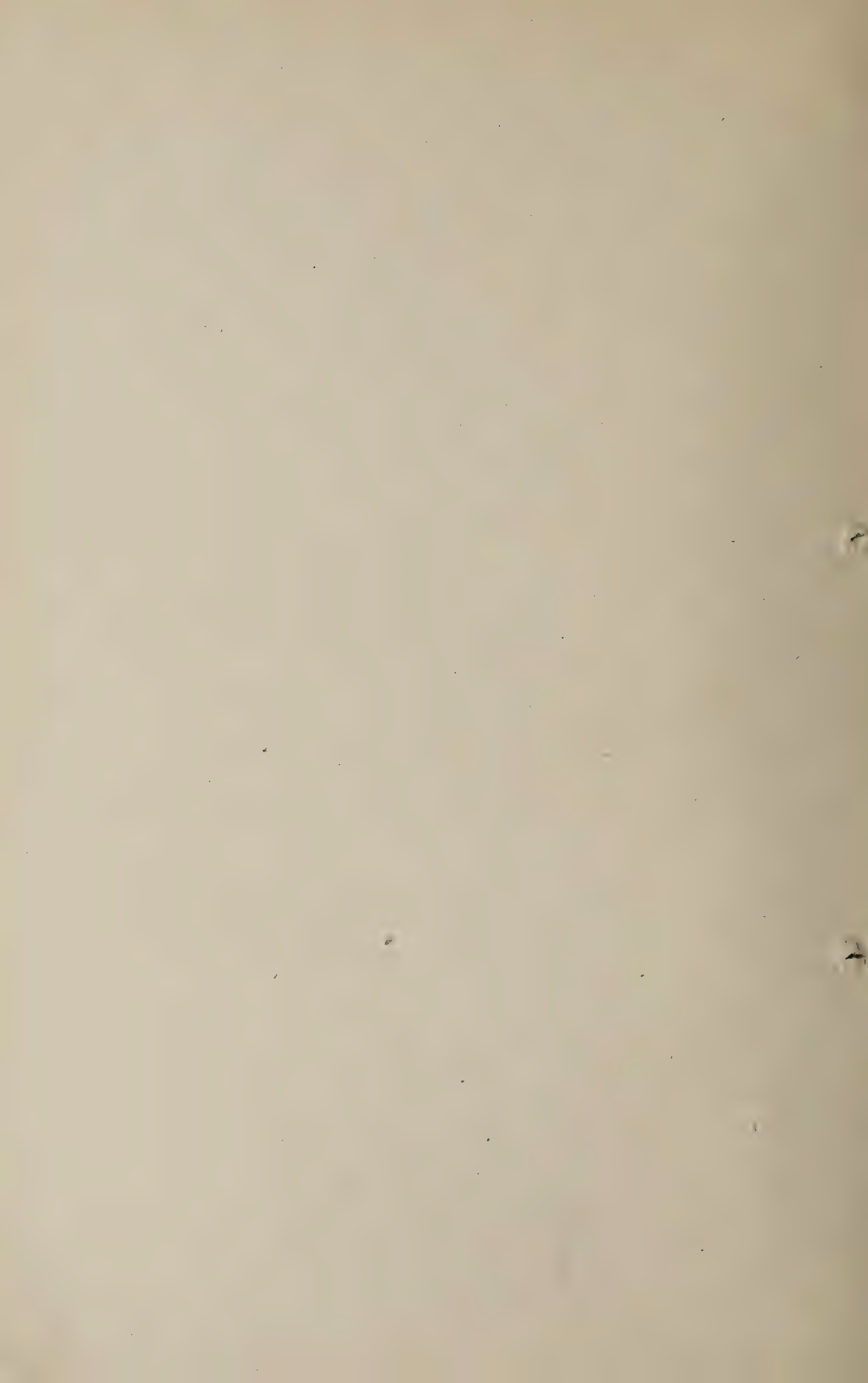
In the rural schools we have not that efficiency we should expect from the better qualified teachers, the much higher salaries paid and the greatly

increased Government aid to those schools. I need only point to two things that will show this: (1) the brief tenure of service of the teachers, and (2) the low average attendance in those schools. The number of changes of teachers in the rural schools of the entire Province is not fifty per cent. of the whole number, which would be bad, not sixty per cent., which would be much worse, but above sixty-five per cent. and very close to seventy per cent.; many schools changing two or more times in the year.

Continuity of management and of work counts for much. The rural communities would study their own interests to good purposes if they realized that the efficiency of their school would be increased from twenty to forty per cent. each year over the preceding year by continuing a satisfactory teacher; and as a matter of course advancing the salary of the teacher who continues in their service at least ten per cent. each year. There must be found some way of remedying existing conditions, which have been growing worse of recent years.

In many counties the salaries of the older and more experienced teachers of the urban schools are much lower than those now being paid to the rural teachers. In some counties for which comparisons have been made the average rural salary exceeds the average salary paid the assistant teachers of the urban centres of the county by \$50, \$75, \$100 or \$125. Dundas county had last year twenty-five rural schools paying a salary of \$600 or better, and only six salaries lower than \$500, with a considerable percentage of the teachers having temporary certificates only. Urban Dundas had Winchester with a maximum salary for lady assistant teachers of \$425, Iroquois with an average of \$425, and Morrisburg, a little better, with an average of \$475. In East Elgin the rural average was just \$112 higher than the urban average, the averages being \$512 and \$400. In West Bruce the rural average was \$522 and the urban average \$450; the maximum salary paid lady teachers in the best town in the inspectorate is \$475, with a minimum much below this, and in the rural schools one-third of all held district certificates or lower. In East Huron the salaries for the rural schools ran from \$500 to \$600 and \$700, but the maximum salary paid to lady assistants reached after years of service in the town of Wingham is only \$475. In Oxford the rural average is about \$550, while in the town of Ingersoll the maximum is \$475, the same as the very lowest rural salary.

The town salaries are far from satisfactory, and the rural salaries have not yet reached a satisfactory basis. Beyond question there must still be advances to get and to hold properly qualified and efficient teachers for a longer term in the face of the lure of the West and the many good openings for alert young men and women in Ontario. While I regard an initial salary of \$550 or \$600 very good for a young teacher, the assurance of such an initial salary in a well-equipped school should be always *initial*, and, as I have before said, should advance as a matter of course because of the very great advantage to the school of continued service. It would be a good thing for a somewhat uniform schedule to prevail by townships if not by inspectorates; and I am glad to know that many Inspectors are doing much to secure a uniform standard within their own inspectorates, and a uniform standard of excellence at that.



PART 2

INSPECTORS' SHORT COURSE AND RURAL EDUCATION CONFERENCE

ONTARIO AGRICULTURAL COLLEGE
AUGUST 4th—8th, 1913



THIS course was held during the last week of the Summer School for Teachers. Eighty Ontario Inspectors were in attendance, and about sixty of these were accommodated for the week in the College residence. The meetings were presided over by W. B. Roadhouse, Esq., Deputy Minister of Agriculture, and Inspectors Campbell and Craig, representatives on the Advisory Council. The following articles contain only portions of the addresses given by the different speakers. They are necessarily incomplete but as far as possible the chief points dealt with are included. They will be found to cover many of the problems of rural life, education and school administration.

XV.—THE RURAL PROBLEMS OF ONTARIO AND THE RELATION OF THE AGRICULTURAL COLLEGE THERETO

DR. G. C. CREELMAN, PRESIDENT O.A.C., GUELPH.

A rural educational conference marks an epoch in public agricultural instruction on the North American continent. Making agriculture a popular study has been a steep up-hill climb. Men compiled text-books and bulletins all to no purpose. The Agricultural College was instituted forty years ago, and at first students had to be paid to attend. The influence of the College to-day is due to the efforts of Dr. Mills, the pioneer President, and to the pioneers of agriculture in Ontario. The settlers of this Province made it the law-abiding place it is where they farmed well and made the world hear of it.

Owing to changed conditions people have been driven to seek instruction in new methods of farming. The introduction of new crops: corn, sugar beets, tobacco and new varieties of grain has disqualified the farmer for teaching his sons. So the assistance of the Ontario Agricultural College is sought as never before.

In such a Province as Ontario, with good land, good water and a favorable climate, one would think the farm would be the most popular place to live; and yet people are leaving farms in large numbers. The retired farmer is a great loss to a rural community, and he is not dignified out of his environment. If he remained in the district his influence and advice would be invaluable in accomplishing local improvements.

To retain the boy on the farm the country home life must be made more attractive. The boys and girls should be taught and encouraged to play and to read, and trained in readiness to change to better methods. The Ontario Agricultural College lends its experience to teachers and all interested in rural betterment for this purpose.

Teachers have a better opportunity to serve the people in a new way than any other body of workers. The new country life needs permanent teachers, willing to take part in all the social work of a community. They need faith in their own ability and faith in the possibilities of the community. They should dominate, but never domineer.

XVI.—WORK OF DISTRICT AGRICULTURAL REPRESENTATIVES IN CONNECTION WITH THE SCHOOLS

1. TOWNSHIP SCHOOL FAIRS.

F. C. HART, Esq., B.S.A., WATERLOO COUNTY.

In the spring we canvassed the schools and organized School Fair Associations among the children. Pupils elected their officers and made a choice of seed they wished to grow: oats, barley, potatoes or mangels. In the autumn the Fair was held. There were entries of weed and weed seed collections, besides the products grown by the children. It was a township competition. Judging took place after lunch, followed by games and a programme. There was a competition in entertainment. A prize was given to the school giving the best half-hour programme. There were prizes for the best essays. There were prizes for the best colts, calves and poultry cared for by children exclusively for three months. Pupils had hunted for their own information regarding care of animals.

The interest of the ratepayers of the township was not great at first, but is increasing. The children now see some use to which their lessons in writing and composition can be put. Their parents are beginning to see the use of agricultural instruction to children. The teachers are learning to make use of the results of the children's work for the Fair in regular school work.

2. CHILDREN'S CORN CLUBS.

C. H. EDWARDS, Esq., B.S.A., ESSEX COUNTY.

The text-book scheme of teaching agriculture has been a failure, as teachers were not trained to interpret the contents. There is no way except by interesting children to undertake practical work. Children are naturally doers.

In Essex county we selected a centre from which schools within a radius of four or five miles could be reached and the work easily carried on. As Essex is a corn-growing county interest centres in corn. In 1909 the Corn Growers' Association began giving prizes for children's entries at the Township Shows. At first the children were allowed to select corn from their father's fields. There were 300 entries. In 1912 there were 1,200 children growing corn for themselves. Teachers and parents were organized to conduct a series of School Fairs. The pupils had been provided with samples of approved varieties of corn for growing purposes. The forenoon of the Fair Day was devoted to making entries and arranging exhibits. Judging took place in the afternoon, followed by races and a programme. There was a corn-judging competition for boys under sixteen years of age. The corn was grown by the pupils and selected by them. There was a class for early and for late varieties. Teachers and some farmers trained the judges in use of score cards with good and inferior ears. Late varieties not mature were discounted.

A shield is to be given to the school writing the best essay on "How to Grow Corn." The shield must be won three times to be retained by a school.

3. TOWNSHIP SCHEME FOR TEACHING AGRICULTURE.

J. MILLER, ESQ., ASSISTANT REPRESENTATIVE, DURHAM COUNTY.

One of the townships was selected for this work. The teachers in the schools were assisted in their teaching of agriculture by sending them outlines for lessons, suggestions for experiments and a pretty full statement of the topic to be taken with the children. These were taken up with the children, and dealt with such things as the soil, its origin and composition; plants, their structure and requirements. Very few of the teachers in the township had had any special training in agriculture, but they all agree that it should be taught. They all say, too, that they would be willing to devote time to it were it not for the pressure of other subjects and the domination of written examinations.

At the close of the course given by the teachers simple test questions were submitted for the pupils to answer. Their papers showed that they had understood well the agricultural principles taught them.

The scheme shows one way in which the District Representative can help the teachers in the rural schools to introduce the teaching of agriculture.

XVII.—AGRICULTURAL ADVANCEMENT THROUGH BOYS' ORGANIZATIONS, SUCH AS THE CARLETON COUNTY BOYS' POTATO- GROWING CONTEST

L. H. NEWMAN, ESQ., B.S.A., SEC. CANADIAN SEED GROWERS' ASSOCIATION, OTTAWA.

The Canadian Seed Growers' Association has a section which deals with the training of children for members in the Association. Some of the present members fifteen years ago took part in the Macdonald-Robertson seed grain competition. A full report of the Carleton County Boys' Potato-growing Contest is given in "Agricultural Education Bulletin No. 5," 1913.

Vocational education develops initiative, skill and ability to manage. It provides participation in the work hand-in-hand with class instruction. In their potato growing the boys learned that there had been nothing done to their plots which their fathers could not do with relatively greater profit; that there is no product without cost; that there is no profit without excess of receipts over expenditure.

The boys' potato plots were in their fathers' fields. Work like this, in connection with the school work, gives a boy a stimulus to continue at school. The contest method gives the project a reality not attainable in any other way. It enables the boy to be an earner while he is still a learner, and will lead him to continue being a learner when he is an earner. He learns to keep correct records of net profit and loss. He gets practice in knowing how to select good seed.

XVIII.—THE CONSOLIDATION OF SCHOOLS

(1) IN THE UNITED STATES.

A. C. MONAHAN, ESQ., SPECIALIST IN RURAL EDUCATION,
WASHINGTON, D.C.

Massachusetts was the first state in the Union to organize a consolidated school. In 1869 the Legislature of that state passed an Act by which any town was authorized to raise money by taxation to enable the School Committee to provide for the conveyance of pupils to and from the public schools at public cost. This authority was first used to convey country pupils to the high schools. Afterwards many district schools in sparsely settled places were closed and the pupils conveyed to the nearest town or village. Finally it was used in operating the consolidated school.

To-day the United States has 15,000 consolidated schools. The state of Indiana has outstripped all the others, having about 600 consolidated schools, to which 20,000 children are transported daily. There are two causes for this: far-sighted educational leaders and adequate school legislation. The township is the unit of organization. The management of its school affairs is in the hands of one man, who is selected by the people. He employs teachers, buys supplies and directs the construction and improvement of buildings. He may legally close any school having an average daily attendance of fifteen or fewer, and must abandon and consolidate all schools having an average daily attendance of not more than twelve. Consolidation is common in Indiana in 82 out of 92 counties. The consolidating of rural schools leads to the organization of the Rural High School. High school classes are gradually added to the consolidated district schools.

The following table shows the present status of consolidation in Indiana:—

No. of district schools	6,962
No. of consolidated schools	589
No. of waggons	1,446
No. of other vehicles	532
Average cost of waggons per day	\$2.24
Average length of routes	4.5 miles
No. of children transported	25,054

The drivers of waggons conveying pupils to school are under authority of the School Board, and are responsible for the behavior of pupils. The waggons are run on schedule time, and are never late.

The Southern States are experiencing a great wave of educational progress, and hundreds of rural schools have been consolidated. In this Louisiana leads. One school, ten miles from a railway, which consisted of a dilapidated one-room building, is now a state approved High School with

eight trained teachers and two hundred and sixty pupils. This indicates the possibilities of consolidation in promoting rural education.

The consolidated school is the only known method of providing adequate primary and secondary education for farm children. It is the only way of securing an attendance large enough to supply for children the companionship necessary for their best development. It is the only way to retain trained teachers for the country and to divide the work so that it may be done efficiently. The road problem enters the consolidation problem. It has been found that good roads follow the consolidation of schools. Poor roads have never been any hindrance in conveying pupils to a centralized school.

Canada is much better prepared to undertake consolidation of schools than the United States is, owing to its excellent system of supervision and Government support.

(2) IN NEW BRUNSWICK.

R. P. STEEVES, ESQ., M.A., DIRECTOR OF AGRICULTURAL EDUCATION,
SUSSEX.

New Brunswick has four consolidated schools. In 1904 a type school was built from the Macdonald Fund and with the Macdonald accessories, a school similar to the Macdonald Consolidated School at Guelph. Seven districts were united; they were sparsely settled, with only 130 pupils. The country was hilly, the people poor, the distances lengthy. The Macdonald Fund paid the extra expenses above what the sections had been paying. After three years' experience the people found that they could not bear the expenses of such a school alone, so arrangements were made to continue the assistance for three years more. At the end of the fifth year the building was burned, but in spite of the additional heavy cost the people declined to abandon the consolidated system and voted to tax themselves heavily to rebuild and continue the school.

The New Brunswick Legislature has voted \$7,000 to sections which adopt consolidation. If three school districts have an average of six pupils or less they must unite, the Government paying one-half of the expenses.

(3) IN ONTARIO.

J. B. REYNOLDS, ESQ., TRUSTEE, M.C.S., BOARD.

The Macdonald Consolidated School began operations in 1903. Five sections were united to form it. The fifteen trustees of these formed the Consolidated School Board. The sections were to retain their separate identity and maintain their old premises in case of a return to the individual system. The law did not provide for a joint annual meeting nor for a financial statement, and some difficulties arose from this. After the

three years assigned for the experiment three and a half sections withdrew, not because they did not appreciate the value of the school, but because it was unfavorably situated and the cost of conveying the pupils was excessive. With one exception, however, all the ratepayers who had children attending the school voted to continue the consolidation at the additional expense; the continuance of the school was prevented by the adverse vote of ratepayers who had no children to be educated. The school was placed in proximity to the Ontario Agricultural College that, as a demonstration, it might be visited by the large numbers of people who annually come to the College; and this location, being out of the true centre of the schools consolidating, undoubtedly had much to do with the breaking up of the five-school consolidation.

In spite of this the consolidated school has proved itself desirable. It continues as a two-school consolidation, the pupils from one section being brought in on the electric railroad. It provides for superior teaching. The pupils find manual training, domestic science and school gardening salutary and agreeable as school subjects.

As for expense, rural ratepayers should be willing to pay as much as towns and cities have to pay for the best educational advantages.

XIX.—REPORTS OF FIELD AGENTS IN AGRICULTURAL EDUCATION



These young men—all of whom are in attendance at the Agricultural College, and experienced in rural school teaching—were appointed by the Department of Education as Field Agents in Agricultural Education in the spring of 1913 to inspect schools taking up agricultural instruction, and to visit other schools wishing to introduce the work. Following are brief report of their work.

REPORT OF R. A. FINN, ESQ.

My work as a Field Agent was chiefly in the district surrounding Peterborough county. Up to the present time I have visited thirty-five schools. Seven of these are qualifying for grants: three in Haliburton, one in Peterborough, one in Ontario and two in Victoria. The other twenty-one schools were taking up some phase of work in agriculture. There were other schools interested in beautifying their grounds.

Many schools had Progress Clubs established, and the pupils were doing very fine work in baking, sewing, canning vegetables, growing crops such as corn and potatoes, or carrying on a series of experiments.

In one township we had four schools join together in a union picnic, at which sports were held. The children had a pleasant day, the parents met the teachers, and a joint meeting of the trustees voted money for prizes and to make the picnic an annual affair since it was such a success.

I also visited schools in Elgin county. In this county many schools have school gardens and teach agriculture. Several of them are entered for the earning of the special grants.

During vacation I made a survey of a township in Northumberland county with a view to finding out agricultural and educational conditions. The facts briefly are these: 8 per cent. of pupils of school age were not enrolled, 92 per cent. were enrolled, 60 per cent. was the average attendance, 50 per cent. passed the high school entrance examination, 25 per cent. go to high school; 7 per cent. drop out at end of first year, 18 per cent. get two years or more at high school, and 2.05 per cent. attend college or university. This is probably better than in many parts of Ontario.

The population has decreased 38 per cent. in the last forty years, and cheese and dairy output has dropped in the last five years from 700 tons to 545 tons.

REPORT OF A. M. McDERMOTT, ESQ.

My district comprised the counties of Simcoe, Grey, Dufferin, Wellington, Halton, Peel and York.

Of the twenty-three schools I visited, twenty-two are qualifying for the special grants allowed for the teaching of agriculture, and sixteen of the teachers were certificated for the work by training at Guelph. Five of the schools are in Grey county, Dufferin has one, Wellington four, Peel five, Halton two, York seven. Better results are being obtained where the teachers have had training at Guelph, not because of more earnest effort or greater enthusiasm, but through better methods and system.

I usually met the trustees, some of the ratepayers and the Inspector at the school, and a general feeling of approval and appreciation of the work was apparent, especially where the work is on its second or third year. The trustees in many cases give valuable assistance.

It is noticeable that the teaching of agriculture is doing much to beautify both school and home by the introduction of flower borders and

beds, window boxes, trees, better fences, grading of grounds, while the improvement in the inside appearance of the schoolrooms bears further testimony of its influence there.

Some teachers complain of being already overcrowded with work, and others say the work goes on much better with the agriculture, for which they can always find the hour a week without neglecting anything else.

In the holidays I made a survey of a typical rural township comprising fifteen school sections. I found only two schools had teachers' private rooms, none had any play equipment, none had given any attention to the teaching of agriculture. The average length of service of teacher was 1.2 years.

I believe Consolidated School Boards would help to remedy this state of affairs. I should say these schools are not filling their proper office because:

(1) They are situated in a purely agricultural community, yet no thought is given to the teaching of agriculture; (2) they have no play equipment, therefore cannot produce "all-round" boys and girls; (3) they contribute nothing to the social life of the community. The great need seems to be leaders, and more permanent teachers.

REPORT OF W. J. AUSTIN, Esq.

Up to the present date I have visited forty-four schools that are entered for special grants for teaching agriculture: in Norfolk county, three; in Brant, three; Haldimand, three; Welland, two; Lincoln, seven; Wentworth, seven; Oxford, six; Perth, seven; Huron, three; Bruce, three. Eighteen of these schools have teachers with two summers' training at Guelph; seven of them have teachers with one summer's training at Guelph; nineteen have teachers without special training in agriculture.

The teachers were notified a few days previous to my visit, and in many cases I met the trustees and some of the ratepayers at the schools.

Taken on the whole, the people seem to have a mistaken idea of what agriculture in the school means, as I often hear the remark "We can have a garden at home." And even some of the teachers are merely having a garden, and not using it for experiments or educational purposes.

Agriculture in the schools seems to grow in favor. The first year people are indifferent; about the third or fourth year, if the teacher is leaving, the trustees begin to enquire "Where can we get an agricultural teacher?" One ratepayer prepared the ground and gave it to the school, and the pupils who have stopped school attend the agricultural lessons on Friday afternoon.

The care of the garden during the holidays is one of the big problems, but in a few schools the trustees are interested enough to come week about with the children to oversee the work.

It leads to the enlargement and improvement of school grounds. Many schools are planting out shrubbery, levelling the lawn, and planting perennial borders.

REPORT OF E. L. SMALL, ESQ.

My district includes all the southern counties of Eastern Ontario, starting at Prince Edward and Hastings counties and extending along the St. Lawrence River.

In Hastings county we have seven schools teaching agriculture and conducting experiments by means of school gardens. All of these schools, except one, are taught by teachers holding the required certificate for teaching elementary agriculture. The work in the majority of these schools is being carried on for the second year, and has become a permanent part of the school curriculum.

Dundas county has nine schools carrying on the work, with only two Guelph trained teachers. Five teachers from this county attended the course at Guelph this summer. This is the first year that agriculture has become part of the curriculum in a number of these schools, and better results in the work are expected next year. Glengarry county has one school which started the work this year.

In addition to the schools teaching agriculture there are twenty-five schools which are conducting experiments at home with grain supplied from the Schools' Division of the Experimental Union, O.A.C., Guelph. This work is conducted by means of school clubs, under the guidance of the teacher.

We have several types of Children's Progress Clubs. Several are testing new varieties of grains or potatoes; others have for their object the general improvement of the school and school grounds. Domestic Science Clubs have interested the girls in cooking and the care of the home. All the clubs are organized, and have officers appointed the same as any co-operative society. The general results of Children's Clubs show: (1) A much deeper interest on the part of the pupil for both school and home; (2) a more kindly feeling among the children, and a greater confidence between teacher and pupil; (3) a vast improvement in oral composition and public speaking, as well as a better understanding of business affairs.

It was thought by a number of teachers in the townships of Sidney and Thurlow, Hastings county, that better work could be done in the schools if the teachers were so organized that they could meet occasionally and discuss school topics. Acting upon these suggestions the teachers met at Belleville to discuss the idea of forming a local Teachers' Association. Officers were appointed and the association formed as a Township Teachers' Association. Its meetings are held the last Saturday of each month, and a particular topic is dealt with at each meeting. This is followed by a general discussion on school work. The District Representative for Hastings county has consented to outline agricultural work at each meeting as a suggestion for lessons. The teachers are also planning for a winter's reading course.

The first part of the holiday season I spent a week at each of the three Model Schools conducted at Bracebridge, Gore Bay and Sturgeon Falls. At these schools lectures were given to nearly two hundred teachers on

topics such as "The Conducting of a School Garden," "The Use of Agricultural Bulletins and Instruction Sheets," "Agricultural Bulletin Boards" and "School Clubs," as well as a number of practical lessons in agriculture, such as rotation of crops, potatoes, grains and soils.

REPORT OF J. E. McLARTY, Esq.

My district included the counties along the Ottawa River: Prescott, Russell, Carleton, Lanark and Renfrew.

The number of schools taking up the work and qualifying for grants in the counties is: Russell, one; Carleton, six; Lanark, one, and Renfrew two. The work in these schools is being carried on by teachers who hold certificates in agriculture, except one in Renfrew and one in Lanark. Four of the schools in Carleton are schools in which the original Macdonald garden scheme was introduced ten years ago.

Besides the schools qualifying for grants, a number of schools have Children's Progress Clubs, Prescott having three, Carleton three and Renfrew four. The aim of these clubs is to test out new varieties of grains, vegetables, etc., in home plots. Records are kept and the results taken up in class work.

In visiting schools the Field Agent encourages and criticizes the work being done, teaches lessons, sets tests on the work taken by the teacher, discusses methods to be used in garden work, introduces games, and reports on the work of the school.

During July I visited the Summer Model Schools at Ottawa, Sharbot Lake and Port Arthur, spending one week at each place giving lectures on the general plans and aims of agricultural teaching, besides teaching several type lessons and going out on a field excursion for the purpose of identification of weeds, etc. Very few of the teachers attending these Model Schools had taken up the work in their schools on account of their fear of lack of knowledge. It is a difficult thing to get teachers to see that they may learn with the pupils in all the experiments carried on in connection with the garden. It is rather painful to relate the complete ignorance of some of the teachers in connection with some simple agriculture. In a test for identification of common field grain seed, a great number were unable to distinguish between barley and oats or wheat and rye. Surely such a state should not exist among our rural population when the Department of Education is doing so much to have the subject taught regularly and systematically in our schools.

A great many teachers complain about the curriculum being too crowded to introduce the work, but according to the experience of many teachers who have been conducting school gardens, the garden makes the teaching of other subjects more practicable by correlation, and thus really lightens school work.

A few of the things noticed in a great many schools were small playgrounds and no apparatus of any kind for play; bulletins sent out were never received by the teacher, or if received (in some cases) not used: there was apparent lack of sympathy from trustees.

REPORT OF R. H. ABRAHAM, ESQ.

The territory in which I am working comprises the counties of Essex, Kent, Elgin, Middlesex, Lambton. In this district sixty-five schools have sent in notifications of intention to teach agriculture, and in the majority of these schools good work is being done.

My method of inspecting the work is to first examine the school register and note the lessons taken up by the teacher; the library is then examined and the agricultural books and bulletins noted; I then conduct an oral examination, asking the children which books they have read and what lessons have been taken from charts. I then ask the third and fourth classes to write a composition on some subject on which they have had a lesson; after the composition has been written, the children are asked to go out to the garden, and as each child stands beside his or her plot to explain what the seeds were planted for, what they were watching the growth for, and what they expected to find out when the plot work was concluded. In this way I found that a great many of the children could tell me that the object of their plot was to find out something that they did not know, and an almost equal number seemed to have no object at all, but promised next year to have an object.

After returning to the school we take up a lesson on some subject of interest to that locality, concluding the visit by a little talk on experiments that might be carried out and investigations that could be made that would enrich their storehouse of agricultural knowledge.

Besides visiting the schools I have given considerable time to the organization of a Corn Club in the township of Harwich, Kent county. With the Inspector I have visited each school in the township, offering the boys and girls enough pure seed corn to plant one-eighth of an acre. The object of this work is to introduce in this way a better strain of corn, to teach the boys and girls to keep records of planting, hoeing, harvesting, cost of producing and profits for crop, also to maintain on each farm a seed plot where the seed corn for the succeeding crop could be grown, something that the Corn Growers' Association, Seed Growers' Association and Experimental Union very strongly recommend. The number of boys and girls who desired to take up the work greatly exceeded our expectations, 200 of them asking for the seed. Each agreed to live up to the conditions and to give honest care to the crop. With the completion of this work we will have two hundred records of the different methods of corn growing, and from the yields we will be able to furnish the children next year with some valuable information regarding which of the methods gave the best yields. Each of these plots was inspected in July. Arrangements have been made also for a School Fair. For this there are one thousand boys and girls in the township who are growing under the supervision of the teachers produce to exhibit at Blenheim in November. The prize money to be given for the exhibits has been subscribed by the ratepayers of the township.

XX.—EXPERIENCES IN TEACHING AGRICULTURE



1. MISS E. CRONE, S.S. 1, SARNIA TP., MANDAUMIN, LAMBTON.

In 1912 the ratepayers in S.S. 1, Sarnia township, built a new school and added a school garden to their educational equipment. The pupils had individual plots in their first garden, and much interest centred in these. This year the agricultural work of the school has been experimental, carried on by means of demonstration plots in school and home gardens. The names of the experiments instead of the names of pupils are on the plots, and the co-operative plan has worked well. The garden has been of service in many indoor lessons. Another line of work is a Children's Poultry Club. The members of the club have Prof. Graham's bulletin in their desks, and they absorb the contents in spare moments. They hold club meetings and exchange information regarding the housing and care of poultry. They are also raising poultry for a Fall Fair. Some boys have undertaken other projects not suggested to them by either parents or teacher. They now tend their farms, think farming and talk farming week in and week out.

2. MISS MARY MOFFITT, CAPE CROKER INDIAN SCHOOL, BRUCE CO.

When I began work on the Cape Croker Indian Reserve, Bruce county, I found the school grounds barren of shade trees and overgrown with docks and thistles. My first duty as an agricultural missionary was to have the children remove those weeds and fill the mud holes about the yard. They rooted out over 2,000 docks, and made a walk with flat stones from the road to the schoolhouse. They also planted some flowers.

A school garden was out of the question as the playground was too small. At last, seeing that the teacher was so much in earnest about it, a neighbor offered his pasture field as a playground, and a garden was started on the school ground. It proved so satisfactory that the Indian Department purchased more land for the school. Part of this was reserved as a teacher's garden. We have vegetables planted, and use it as a demonstra-

tion to the Indians of how to cultivate and care for a garden. Seeds of the same vegetables were given to the girls to use in home gardens. One girl raised eighty large citrons and twenty-four squash, besides taking first prize in a Potato Club contest.

In the addition to the school ground were some old apple trees. The boys pruned these old trees and planted some new ones. Their work has been to take charge of corn, grains and trees. From the first school garden everything that could be eaten raw disappeared, and no tree ever had a ripe apple. Since the pupils have had charge a revolution has taken place.

Both people and pupils are now taking an interest in agriculture. The boys are thinking that farming is better than working in the mills and lumber yards. The Indian Department has offered scholarships to boys who pass the entrance to help pay their expenses at high school or college. Six Cape Croker boys have recently been entitled to these, but until the present year not one could be persuaded to attend the Ontario Agricultural College. Four boys over seventeen years of age are intending to compete for two scholarships for the O.A.C., and this at a time when they are of use to their parents in getting out winter timber.

3. MISS C. E. NEELANDS, S.S. 10, BOGNOR, WOODFORD, GREY Co.

In 1912 school gardening was begun on a small scale. This year it was conducted on a piece of ground 105 feet by 21. One-half is in flowers and the other is used for demonstrations in agriculture. The garden has excited great interest throughout the section. Ex-pupils come to visit it, and the trustees have agreed to engage a new teacher only on condition that she attend the Summer School for Teachers at Guelph and take the training in agriculture.

In connection with our work in agriculture we recently had an interesting experiment with wood ashes. The accumulation of several years of ashes were lying in the yard and the question of using them for a fertilizer on the garden plots was being considered. Before doing this, however, a quantity of the ashes were treated with water. Some fresh unexposed ashes were mixed with water also for a comparison. After settling, the liquids were evaporated in dishes on the school stove and the discovery made that the old ashes had lost all their soluble potash.

4. R. BALDERSON, ESQ., S.S. 10, BATHURST TP., LANARK Co.

In my experience in teaching agriculture I have come to the following conclusions:—

1. That the teaching of the subject under the plans now advocated will prove of great and lasting benefit to the rural schools of the Province. In my work I received great help from the Ontario Agricultural College and from our County Representative of Agriculture. I have been two years in a "School Fair" competition and I find that the competition is an excellent plan for awakening the interest of the pupils and parents. Last year there were four schools in the competition; this year there are

ten. A silver cup is given each year to the school scoring the highest in exhibits, and is a coveted prize indeed.

2. That agriculture interests particularly the older pupils, and is a great inducement to large boys to remain at school. Last year I had one big boy quit school while in the Junior IV. After he heard of the agricultural competition he came back and stayed on until he passed his examination to the high school. There is no lesson that I teach that so interests the pupils as the lesson in agriculture, and I find by associating it with geography, composition, literature, drawing and arithmetic that I can awaken a greater interest in these subjects and often kill two birds with the one stone, as it were.

(3) That every School Board in Ontario would have teaching of agriculture introduced if they understood what it means. Since taking up agriculture I have learned to appreciate the blessings of rural life.

I took a course in 1913 (July 3rd to August 8th) at Guelph in Nature Study, and I intend to take the other in Agriculture in 1914. I would not have missed the course. I find in a great many ways I have been helped by the summer school. I would rather have what I learned at the O.A.C. summer school than what I learned in three years' high school work. I have learned much also by associating with other teachers from different parts of Ontario.

5. D. BEBENSEE, Esq., S.S. 5, ZONE TP., KENT Co.

A small school garden was commenced in 1912. This year it contains ten square rods. The teacher and pupils are carrying on the following experimental comparisons:—

1. Potatoes with and without fertilizer.
2. Beans in hills and drills.
3. Variety test of mangels.
4. Test of bushel per acre of O.A.C. No. 72 oats and O.A.C. No. 21 barley.

Besides these the pupils are growing broom corn, beets, turnips, tomatoes, cucumbers and flowers.

In school the pupils have had lessons in recognizing varieties of apples and different kinds of wood, learning to know the wood by its grain as well as by the bark. Arithmetic is being applied to farm life. The pupils found out the acreage of different crops grown on representative farms, and from these determined which was the most profitable crop grown in the neighborhood, estimating them in exact percentages.

The school is serving its highest purpose when the boy brings to it a problem he has met with in practical life and expects through it to find out a solution. A boy brought to school an apple upon which the teacher

found San José scale. At that moment began the agricultural lesson of the week. Then when spring came the pupils were taken to an orchard where a large motor-sprayer was in operation and the lesson was continued. A farmer sent to school a sample of timothy seed. The boys examined it and found it to contain many noxious weed seeds. These were placed in vials, labelled and returned to the farmer, who saw at once that his seed was unfit for use.

There is no part of school work whereby the social, intellectual and spiritual condition of the pupils may be more permanently aided than in this hand-to-hand and heart-to-heart work required in teaching practical agriculture. If there were no financial remuneration whatever for the teacher, I still should continue to take up the work.

6. E. PUGSLEY, Esq., B.A., SCIENCE TEACHER, BERLIN COLLEGIATE INSTITUTE.

My reasons for choosing the agricultural option allowed in Elementary Science of the Lower School were:—

1. To get rid of the vague, troublesome outdoor work prescribed in the lower school science.
2. To give a more practical turn to the teaching of the biology of the First and Second Forms.
3. To give a different and higher viewpoint of the farm and farm life.
4. To satisfy a natural curiosity I had *re* agriculture in high schools.
5. To grow material for classwork in the laboratory, and possibly for the use of the classes in domestic science.

The results were as follows:—

1. I got rid of the outdoor work and the fault-finding that accompanied its inspection.
2. At least a few practical lessons were given, especially in reference to new and good varieties of seeds, and in regard to the best live stock to keep.
3. We accomplished something in giving pupils correct viewpoints concerning agriculture, but much more could be done, especially by a teacher trained in agriculture.
4. My curiosity is satisfied to some extent. The subject can be taught to good advantage, and is most interesting even to the city pupils.
5. We grew little in our experimental plots that could be used, but I can see how this aspect of the work could be made of great value.

In conclusion I may say that I am convinced that the teaching of agriculture in our high schools is possible, interesting and instructive, and that there is no loss of either dignity or culture.

XXI.—TEACHING OF AGRICULTURE IN ELEMENTARY AND SECONDARY SCHOOLS OF THE UNITED STATES

A. C. MONAHAN, ESQ., SPECIALIST IN RURAL EDUCATION, BUREAU OF EDUCATION, WASHINGTON, D.C.

Columbia and Yale were the first Universities in the United States to establish a chair in Agricultural Science. Every state has now an Agricultural Experiment Station and receives \$80,000 annually from the Government at Washington to be spent in agricultural education. There are now throughout the country: (1) Special secondary schools supported by the state government giving two-year or three-year courses in agriculture; (2) separate agricultural schools; (3) high schools maintaining Departments of Agriculture; (4) others giving courses in agriculture; 830 schools with one-year course; 39 schools with a two-year course.

In many schools mere text-book work is taken; this, of course, cannot be considered really as "teaching agriculture." One phase of the work meeting with great success is the work of Children's Clubs. Dr. Knapp commenced this work in the Southern States. By means of the county demonstrators in agriculture he organized Boys' and Girls' Corn Clubs, Tomato Canning Clubs, Cotton Clubs, Potato Clubs and others in connection with schools. Gradually this activity became recognized as valuable, furnishing a practical basis for academic work in schools.

In Massachusetts a scheme for agricultural teaching has been planned similar to the Trade School scheme of cities. In the Trade School the pupils spend half a day in school and the other half in the shop, where they apply the theories they learn at the school. Pupils in a Massachusetts high school where agriculture is taught undertake a so-called "home project" such as the care of a dairy herd, spraying for apple scab, spraying for potato beetle, etc. In the school the pupils undertake such practical work as the Babcock test for milk from surrounding homes, leading to the weeding out of poor cows from the herd. Manual training consists in repairing old farm machinery, caring for farm tools, the making of model poultry houses, etc. A boy's knowledge of arithmetic can be put to good practical use when he makes a model building.

People everywhere are beginning to realize that school work has been foreign to children's daily experiences. Many schools are now trying to adapt their work to the local interests of their communities. In this they are having the hearty support of the public. On the school ground of a Louisiana school a canning factory has been built which in one year paid \$2,000 for the work done by the pupils. The proceeds were distributed to the people in the vicinity who raised the vegetables.

In an Iowa Corn Club the fathers of the boys helped them in corn judging and seed testing. In a North Carolina school a cotton school

garden was planted. The crop was sold to secure money for the support of the school. An annual community dinner was held, which brought parents together to see conditions and was the beginning of school improvements.

XXII.—PLANS FOR ONTARIO SCHOOL GROUND IMPROVEMENT

H. L. HUTT, ESQ., PROFESSOR OF LANDSCAPE GARDENING, O.A.C., GUELPH.

Note.—This address was illustrated by means of lantern slides. Plans prepared for a number of Ontario schools were shown, as well as views of well-planned grounds of schools and other public buildings.

The teacher is the chief factor in school improvement. She must visit the trustees and get their support and sympathy. This done, she should prepare a survey of the ground. In planting shrubs and trees the future must be kept in mind and a mental picture of how the grounds will look when everything is full-grown. The building should form a complete picture in itself, with trees in the background. Nothing should obstruct the view of the buildings from the road. Planting should not be commenced until the grounds are properly graded and drained.

The playground should be large—large enough to accommodate a union school picnic and field day. A school garden should form part of the grounds.

The Department of Landscape Gardening of the O.A.C. will assist any School Board in laying out grounds and making plans.

XXIII.—POSSIBILITIES IN AGRICULTURE THROUGH CROP IMPROVEMENT

C. A. ZAVITZ, ESQ., PROFESSOR OF FIELD HUSBANDRY, O.A.C., GUELPH.

Census of Canadian Agricultural Wealth.—According to the latest available statistics, the products of agriculture amount to over four hundred million dollars annually, which is three times as great as the combined values obtained from forests, mines and fisheries of the whole of Canada. The agricultural wealth of the Province of Ontario is greater than that of all the rest of the Dominion combined. The annual value of the field crops which are grown in Ontario is greater than the combined value of the products of the forests and the mines and the fisheries and the wild animals of the whole Dominion.

If the last thirty years were divided into two periods and compared, it is found that the yield of grain per acre has increased, in spite of the tendency toward depletion.

Possibilities have not Reached Their Limit.—There is a tremendous difference between the average crop in Ontario over what may be obtained. By means of care over selection, crop rotation and fertility of soil the yield may be not only doubled but trebled. People are now hungering for agricultural information. Through the teaching of simple experiments to the children of to-day in the rural schools, future farmers may attain great things in regard to crop improvement. If a boy selects the best head of oats on his father's farm and from it one best seed and sows it by itself and finds that in the third year it produces a hundred bushels, he has learned a wonderful lesson.

XXIV.—ONTARIO POULTRY PROBLEMS AND POSSIBILITIES

W. R. GRAHAM, ESQ., PROFESSOR OF POULTRY HUSBANDRY, O.A.C.,
GUELPH.

Up to ten years ago there were no Poultry Departments in any Agricultural College. Now all classes are interested in poultry. The Poultry Associations are composed of all classes of people with various viewpoints. The question is often asked why poultry farms fail. The answer is: (1) Most people go into the business with no knowledge of it; (2) there is lacking the sympathetic touch between the person and the bird; (3) people want to grow the greatest number of fowls possible to the "square inch"; (4) they do not keep the help necessary for cleanliness, and disease finishes the business; (5) they are careless in their methods.

Years ago Canada exported eggs. Now carloads are imported. Thanks to the doctor and the chemist, people are consuming more eggs. Denmark is the greatest exporter of eggs. A Danish farmer has a small home of about ten acres, with three or four cows and fifty hens. In order to protect himself and exist he keeps everything perfectly clean and takes advantage of co-operative methods of selling. In America one-fifth of the eggs are unfit for food when they reach the consumer. In Denmark only one per cent. are unfit. In America there is a poor method of handling; people are careless about leaving eggs where they absorb flavors of things with which they are in contact; and careless about the temperature to which they are exposed; and indifferent about guarding against fertility. In Denmark eggs are stamped and collected as milk is collected. If eggs are not up to the standard the farmer is fined. People may be honest, but they need education in carefulness. Children can easily be educated in the proper care of poultry and their products.

XXV.—FRUIT-GROWING IN ONTARIO

J. W. CROW, ESQ., PROFESSOR OF POMOLOGY, O.A. COLLEGE, GUELPH.

The probabilities of the fruit-growing industry in Ontario are a long way short of its possibilities because of certain problems.

1. *The New Man in the Business.*—There is a large proportion of inexperienced people in it. Until lately there has been no literature available for the amateur fruit-grower. There has been no course in Agricultural Colleges in farm management dealing with business principles. The services of the Fruit-growing Department at the O.A.C. are at the disposal of the man new in the business. He needs to know the kind of land necessary, the size of farm, transportation facilities, the demands of the market and the kinds of climate.

2. *Production.*—The cost of production is affected by labor, by the productive power of the soil, and by the size of the individual unit. Owing to the cost of equipment and shipping it is cheaper to operate a large farm than a small one.

3. *Marketing.*—The problem of marketing has been the greatest hindrance to profitable fruit-growing. The commencement recently of co-operative marketing associations is an indication of its approaching solution.

XXVI.—THE BEEKEEPING INDUSTRY OF ONTARIO

M. PETTIT, ESQ., PROVINCIAL APIARIST, DEPT. OF AGRICULTURE, O.A.C.

The study of the life history of the bee is comparatively easy, as bees live in colonies and their whole life history can be observed at one time in all its stages. It is thus suitable for Nature Study work. An observation hive can be kept in a schoolroom or sitting-room or office, with a small tunnel through the sash of the window through which the bees may go and come. Bees do not object to working in the light.

The Beekeepers' Association in Ontario has 1,400 members, but altogether there are about 10,000 people who keep bees. The Ontario Government gives \$4,000 annually for apiary instruction; the instructors, besides examining apiaries for bee diseases, conduct demonstration meetings in apiaries. Sixty of these during the season of 1913 had an average attendance of about thirty. The interest has been very keen. People have driven twenty miles to be present. Demonstrations have also been given at Fall Fairs.

Beekeeping in Ontario is only in its infancy. A few men are making a comfortable living keeping bees, and many men and women add considerable to their incomes by keeping bees as a side line. But there is still much unoccupied territory in the Province where honey is going to waste for the lack of bees to gather it.

XXVII.—ONTARIO'S INTEREST IN ANIMAL HUSBANDRY

R. W. WADE, ESQ., ASSOCIATE PROFESSOR OF ANIMAL HUSBANDRY, O.A.C.

Farmers have learned the live stock business from experience. At first they bred for use any kind of horse; gradually they discovered that it was more profitable to keep one that met market requirements, adapted for farming or lumbering. In cattle they kept at first a thick-fleshed type of dairy animal; later they found that special dairy breeds brought better returns. Then, too, from dairying there is furnished a valuable by-product to maintain hogs which produce a good quality of bacon for the market. The fault in the hog industry is that there is not stability enough in raising a particular class. Farmers should utilize every bit of skill and information to produce a high quality and not change from one breed to another. People must be educated to use a first-class article before they will demand it.

The study of live stock is an important part of Agriculture for the schools. A teacher should have an intelligent appreciation of what the farmer needs to know. The boys should be taught (1) to keep records so as to avoid loss; (2) to make the most of opportunities; (3) to study animals and visit shows; (4) to get rid of unprofitable types; (5) to study market reports so as to know whether the farmers are losing or winning; (6) to cull information from farm papers and bulletins; (?) to read and use a library.

In a hundred years there has been no decrease in the live stock business. It never can decrease. Any agriculture, to be stable, rests upon the retaining of live stock, as the fertility of the soil depends upon it.

XXVIII.—PROBLEMS OF DAIRYING IN ONTARIO

H. H. DEAN, ESQ., PROFESSOR OF DAIRY HUSBANDRY, O. A. C., GUELPH.

Every school in a dairying section should have a good scale like Chatillon's. The arithmetic in rural schools should be the arithmetic of the farm, not of Wall Street. Plenty of problems in decimals and percentages can be solved and their meaning understood when they are problems of the every-day life of the children. Every school in a dairying section should have a Babcock Milk Tester. One or two of the older children could have charge of it and undertake the milk testing for the neighborhood.

The dairy cow is the foster-mother of the human race and the chief provider of the wherewithal to pay taxes, salaries and other necessities on and off the farm in Ontario. The problem of a Dairy Farmer is, how to have the maximum of comfort and enjoyment, bodily and mentally, with

a minimum of hard labor and anxiety. It is important that farmers should rise above the standard of—

“Honest John Tompkins, the hedger and ditcher
Although he was poor did not want to be richer.”

Discontent with present conditions is the first step in order to make advancement.

“The man who is contented is hardly worth while in the world. It is never-ending unrest and dissatisfaction that is continuously driving men to higher and better achievements.”

Dairy farming, as in the case of all other branches of farming, should be looked upon as a business and be conducted on business principles. This involves a simple method of book-keeping on the farm. Farming as a business should furnish:

(a) Interest on capital invested, say, \$10,000 in 100 acres of land at 5%	\$500
\$2,500 in stock and implements at 10%	250
(b) Labor, insurance, incidental expenses	1,000
(c) Manager or owner's salary, cash	1,000
<hr/>	
Total	\$2,750

In order to obtain a cash return of \$2,000 to \$3,000 annually from 100 acres of land, a dairy farmer needs:

1. Better cows than are to be found on average Ontario farms where the annual milk production per cow is 3,000 to 4,000 lbs., whereas it should be 6,000 to 10,000 lbs. per cow.

 Returns, ten average cows, \$300 to \$400.
 Returns, ten good cows, \$600 to \$1,000.

2. More and cheaper feed—O (Oats) A (Alfalfa and grass) C (Corn) crops for dairy farms.

3. Sanitary stabling—clean, light, well-ventilated, made of cement, iron and wood.

4. Abundant supply of water, but not necessarily in front of cows all the time. Neither men nor cows require to be continuously eating and drinking.

5. Clean, skilful management and shrewd buying and selling.

Second only to the money problem is that of soil fertility, which is the basis of all good farming. To maintain and increase plant food in soils we need:

1. More live stock on Ontario farms. Dairy cattle and hogs are profitable.

2. Less fertility sold from the farm. Selling cream and butter is best.

3. Growth of clovers and plowing under green crops to increase humus.

XXIX.—THE SCHOOL AS A SOCIAL CENTRE

A. C. MONAHAN, Esq., WASHINGTON, D.C.

The old opinion of the school was that it was a place where a child spent six hours a day, five days a week, going through a dull routine of spelling, reading and arithmetic. The school has been out of touch with the home. It has failed to adjust itself to changing conditions. It has failed to take into consideration the lives of children outside of school and to adapt school methods to them.

People are beginning to appreciate this condition of affairs, and attempts are being made now to relate the work of the school more closely to industrial life. Education comes from constant brain effort. As soon as effort ceases, growth ceases. As soon as work becomes automatic it ceases to be educational. Those studies are most valuable which continually stimulate inquiry and effort. It is important, therefore, to add Agriculture, Manual Training, Household Science and Sanitation to the course of study, as these studies have large educational content as well as a living application in every-day life.

In the United States many agencies are at work to bring the school into close relation to life. The *Parent-Teacher Associations* are doing a good work; teachers are organizing associations of parents and teachers to get parents interested and to discuss education. It is more important to teachers to know what parents do with the children at home than for the parents to know what the teacher does with them at school. *The Educational Conference* in the South is doing a splendid work. It is composed of educational workers and other people in all lines of business. They meet to discuss education—the relation of the school to the rest of the country. Its work is even more vital than that of the National Educational Association.

The School Improvement Associations are doing good work also. They are local, county or state organizations. These are composed of people who have pledged themselves to assist in school improvement. One association, for example, meets fortnightly at the school; it celebrates Opening Day, Arbor Day and Clean-up or Health Day. The teacher leads unobtrusively. The parents manage and carry out all arrangements. Another Association found that the school had to compete with a hotel as a place of amusement. By its efforts the hotel was changed into an educational centre and place of clean amusement. Games were organized in connection with a school and boys were not allowed to play on a Baseball or Basketball team without good standing in their class room. The games attracted boys to the school. At another school a teacher organized a night class in Agriculture, composed of the young men of the section. The class appointed a leader and took the Correspondence Course of an Agricultural College. The teacher was no better informed than the boys, but they began a great work. The boys tested corn. Two boys who had worked *for* their father before undertook to cultivate sixty acres of corn on approved methods, and thereafter became *partners with him*.

XXX.—AGENCIES OPERATING FOR SCHOOL IMPROVEMENT AND RURAL PROGRESS GENERALLY

1. THE COUNTRY CHURCH AND MINISTER.

REV. JAMES ANTHONY, AGINCOURT, YORK COUNTY.

Relation of the Church to social betterment.—The Church has always stood for inspiration and for community betterment. Conditions are not alike in all parts of the country, but generally the country church far from large centres of civilization is experiencing in its work a "sag." The problem is an economic one. For the amount of intelligence and labor and outlay the Church is not getting adequate returns.

The function of the Church is to give direction to every distinctive human interest. It should be open on week-days and bring people together to play games and to see games played and have the advantage of extension lectures by specialists just as city people have.

The rural teacher and the preacher should work together. They need the wisdom of Solomon, the patience of Job, the meekness of Moses, and the hide of a rhinoceros. They should both have a scientific knowledge of Agriculture. The preacher has the advantage of the teacher because he is a resident, while the teacher is a migrant. He should visit the school and know the boys and girls. The Church is in a position to give continuity and stability to every good movement.

2. TOWNSHIP TRUSTEES' ASSOCIATIONS.

N. MACDOUGALL, Esq., B.A., INSPECTOR OF SCHOOLS, LAMBTON Co.

The township of Enniskillen, Lambton County, organized a 'Trustees' and Ratepayers' Association in February, 1913. Farmers buy an implement if they are convinced that it will help them in their farm work. They would adopt radical changes in education also if they could be convinced of the necessity. A trustees' association offers splendid opportunities for discussing educational questions.

In June they held a township picnic of all the schools. Each school had a banner; pupils wore badges. A parade was held and prizes were awarded to schools making the best appearance. There were also singing competitions, and competitions in performances of Strathcona Physical Exercises and Drill. There were races for pupils, teachers and trustees. With the assistance of the District Representative, Inspector and teachers, a Rural School Fair, to include all the schools in the township, will be held in the Fall.

Trustee Associations should be encouraged by grants from the Education Department. Education has a better chance of making progress when those interested are brought together. Every teacher should be active in suggesting co-operation for school improvement. She should lead unobtrusively in her section and the Inspector should be a leader in his inspectorate.

3. THE AGRICULTURAL PRESS.

W. L. SMITH, ESQ., EDITOR "WEEKLY SUN," TORONTO.

Unless improvement takes place in a short time this country will meet with great disaster. The depletion of the rural population is alarming and ruinous to the social, religious and educational interests of the nation. What is the cause? People have a wrong view of life and are wrongly informed of city conditions. The press cannot do much. Boys and girls have not been trained to read agricultural papers. The only person who has the opportunity to teach children the truths of economic living is the teacher. The lack of city conveniences in the farm home drives away the young people. The fact that help for farm work is so scarce makes the farmer and his wife look forward to retiring from farm life. The energies of the country are centred on building enormous cities at the expense of the country. Every advantage is given to the city. Branch banks collect the savings of the farmer and send them to the cities to be lent to large industrial concerns which indirectly operate against the prosperity of the farmer. The present fiscal system has clogged the market.

If the best of the rural population continues to desert the country the land will be left unoccupied by low-class Canadians and by peasants from the south of Europe who are unfit for their work as part of a great system of national government. It is the business of all educational workers to magnify Agriculture. Without it the country perishes.

4. WOMEN'S INSTITUTES FOR THE SCHOOLS.

P. C. MACLAURIN, ESQ., PRINCIPAL HIGH SCHOOL, BELLEVILLE, ONT.

Home Life has been affected by the rapid and vital progress in the commercial, industrial and social world, consequently women have discovered that the old system of education is not adequate to fit girls to live efficiently when they leave school. The Women's Institute has been formed to deal with this problem; to spread information and provide training for women and girls everywhere to supplement what has been lacking in their public school education. The life work of women is home making, not the making of one home exclusively, but the homes of the community and the nation. So girls should be trained in house sanitation, decoration, cookery, house management, child-study and sociology.

Women's Institutes have been of great assistance to schools in many districts, helping to beautify them, helping to commence school gardening and provide for the care of the garden during vacation, assisting at school fairs and Arbor Day celebrations. In Belleville the Women's Institute has established supervised playgrounds. It has also brought strong influence to bear upon the Board of Education by which Domestic Science is to be introduced into the high school for the benefit of the girls of that city.

Note.—For an account of the work of the Belleville High School Women's Institute see Agricultural Education Bulletin No. 6.

GEO. A. PUTNAM, ESQ., SUPERINTENDENT OF INSTITUTES, TORONTO.

Women's Institutes are becoming a great force in making improvements in social lines. There are now 800 Women's Institutes in Ontario. In 1912, through their extension work they reached 600 women and girls in the rural districts, providing instruction in food values and cooking, domestic art, home nursing and house sanitation. There is a growing tendency among Institutes to undertake some special line of social work. The sanitation of the rural school, the establishment of libraries, the consideration of social problems, child-welfare, dental and medical inspection of rural school pupils are receiving due consideration.

5. COUNTY RURAL TRUSTEES' ASSOCIATIONS.

REV. J. J. BELL, PRESIDENT DUFFERIN COUNTY ASSOCIATION, LAUREL, ONT.

The Dufferin County Association of Rural Trustees was organized about four years ago. Three conventions were held during last winter in three different centres. The Model Rural School belonging to the Department of Education was procured and exhibited. These conventions taught the farmers that changes in the school system are necessary, that consolidation is desirable, that larger playgrounds should be provided, and up-to-date buildings. The Government should give financial support to every association of county trustees.

6. THE GRANGE.

W. C. GOOD, ESQ., PRESIDENT THE DOMINION GRANGE OF CANADA,
BRANTFORD.

The Grange, whose members proudly designated themselves as the Patrons of Husbandry, is a fraternal organization based upon a philosophical or moral principle. In 1872 there were one thousand subordinate Granges in the United States. The State Granges send representatives to the National Grange. 1874 marks the advent of the Grange to Canada. The Grange forgot that its object was educational, and this caused disintegration. In 1907 the old constitution of the Grange was revived and its ritual revised. There is now a Junior Grange of young members and a Senior Grange. Locally they have united people socially. Their meetings are educational, where agricultural and economic problems are discussed. There are great possibilities for country uplift in Grange influence.

XXXI.—A SYSTEM OF AGRICULTURAL CONTINUATION SCHOOLS FOR WENTWORTH COUNTY

J. H. SMITH, ESQ., INSPECTOR OF PUBLIC SCHOOLS, WENTWORTH CO.,
HAMILTON.

As the present system of section boards of trustees has outgrown its usefulness, some scheme should be formulated whereby the useful feature of the section system may be retained and new features embodied that

experience has shown to be necessary in the proper education of the rural population. The present system is too democratic. The best efforts of teachers and inspectors have too frequently been thwarted by the action of the ratepayers. Local self-interest has been the dominating power in determining what changes should be made. There should be a concentration of power in some corporate body that will command the attention and the respect of the people dealt with. Advantages which would accrue from the establishment of a County Board of Education are: (1) A uniform rate of taxation over the county; (2) advanced schools placed where most needed; (3) a better class of teachers employed; (4) period of retention of teacher lengthened; (5) division of school work better controlled; (6) suitable provision made for advanced work; (7) special winter classes provided for young people unable to attend constantly; (8) introduction of manual training, domestic science and commercial work; (9) better buildings and improved surroundings; (10) schools could then be made the social and intellectual centres for the various neighborhoods.

Some of the present section schools can be retained as primary schools. Others can be grouped for Consolidated Continuation Classes. Such schools should be built *in the country* centrally situated and contain at least three rooms, one for primary classes, one for continuation class work, and one large and properly equipped science room for the use of the continuation classes and for the instruction of farmers and their families in Agricultural Science. From these classes pupils could matriculate into the O.A.C. The school would form an important factor in the dissemination of agricultural knowledge and prove of great service to its community.

XXXII.—SCHOOL TRUSTEE BOARDS

H. H. BURGESS, ESQ., B.A., INSPECTOR OF PUBLIC SCHOOLS, WEST GREY.

The present school-section system blocks the way to progressive education. The average country school trustee does not represent the people. The people do not attend the annual meeting, and many trustees take no interest in the education of children. Many are elected without having proper qualifications for that work. The present system was originated when people lived in isolated settlements. There is difficulty every year in getting trustees to make up the books and send in reports. The efforts of inspectors are wasted on the majority of trustee boards. They often have to withhold the grant to get improvements, which sets a low ideal for the people. The present system involves unnecessary expense and the people never get value for their outlay. Schools are almost invariably built on a cheap scale.

The time has come to consider the organization of Township Boards of Education. Instead of having several hundred men indifferently looking after the schools of the province, each township should elect five or seven competent men for that purpose. Communities would then have a better and larger vision and the Department could deal in a businesslike way with a township.

XXXIII.—COMPARISON OF SCHOOLS AND EDUCATION IN ONTARIO AND GERMANY AS OBSERVED BY A LAYMAN

OTTO HERROLD, ESQ., BOW PARK SEED AND EXPERIMENTAL FARM,
BRANTFORD.

Germany is supposed to be the leading nation in education. Judging from the progress my own children have made, Ontario schools are just as good and as well taught as they are in Germany. We are surprised at the slight value placed upon education in this country and especially at the poor support and little respect accorded the teaching profession by people generally. In Germany there is more discipline in the schools. The parents keep in touch with the teacher, uphold and walk hand in hand with her. Teachers are better paid than any other body of workers; in fact, the development of Germany started with the increase of teachers' salaries. People found that good education depends on permanent teachers. At election time people ask the candidates, "What are you going to do to help the schools?"

Attendance of young people at the Trade Schools in Germany is compulsory; so is attendance at night schools. Young people do not lounge about street corners in the evenings. There are winter schools in agriculture attended by farmers and their sons. Boys from fifteen to twenty-four years of age are enrolled every winter from country districts in these schools. Seventy-five per cent. of German teachers are men.

XXXIV.—AGRICULTURAL EDUCATION IN SCANDINAVIAN COUNTRIES

PAUL A. BOVING, ESQ., B.A., B.S.A., MACDONALD COLLEGE, P.Q.

Sweden and Denmark have come to the fore as agricultural nations only recently. Progress has been attained by placing a good general education within the reach of every man and woman. The Government discovered that bulletins were not being made use of, that District Representatives of the Department of Agriculture did not reach the people, that individual education was valueless from a national standpoint.

In 1864 the first *People's High Schools* were established. The aim was not to graduate first-class farmers, but to put education first. But *all* the work related to agriculture. Botany was a study of economic plants; Physics was a study of soils. The course required no entrance examination and no fees. It was in two parts, of six months' duration each. Boys from sixteen to twenty years of age attended in the winter and girls of the same age in the summer.

These People's Schools reached the people. The young people carried home information resulting from their studies and interested their parents. This caused a thirst for agricultural knowledge throughout the whole country. People got a broad view of life and began co-operating for the general welfare. Egg-circles, cow-testing societies, in fact, every sort of co-operative organization was formed, with the result that the people work now for the best and immediately eliminate the unprofitable. They have found that the road to success lies through education and co-operation.

ONTARIO DEPARTMENT OF EDUCATION

Publications Relating to Agriculture

Copies of these publications have been sent to all the schools concerned, and teachers should see that they are retained in the schools for reference. So far as the supply will admit of it, additional copies are sent to teachers or others requesting the same. Some of the circulars are for pupils' use; additional copies of these are furnished free to teachers who make use of them in the classes. Address Director of Elementary Agricultural Education, Ontario Agricultural College, Guelph.

Circulars and Charts

	1908....Improvement of School Grounds.
	1909....Plans for Rural School Buildings.
Circular 47,	1907....Equipment for Agricultural Departments in High Schools.
Circular 47½,	1911....Regulations and Courses of Study for High School Agricultural Departments under District Representatives.
Circular 13,	1913....Regulations Relating to Elementary Agriculture and Horticulture and School Gardens.
Circular 13A,	1912....Children's Gardening. (<i>For Pupils.</i>)
Circular 13B,	1913....Spring and Summer Courses for Teachers at the Ontario Agricultural College, Guelph.
Circular 13D,	1912....Alfalfa or Lucerne. (<i>For Pupils.</i>)
Chart No. 1,	1912....Alfalfa or Lucerne.
Circular 13E,	1912....On the Best Time to Sow Spring Grains. (<i>For Pupils.</i>)
Chart No. 2,	1912....On the Best Time to Sow Spring Grains.
Circular 47(A),	1912....Regulations re B.S. (Agr.) Courses at Universities and O.A.C.
Circular 13M,	1913....Rural Education Conference and Inspectors' Short Course, O.A.C.
Circular 13N,	1913....High School Science Teachers' Course in Agriculture, O.A.C.
Circular 13(1),	1913....Regulations, Courses of Study, etc., relating to Agriculture and Horticulture in High and Continuation Schools.

Agricultural Education Bulletins

No. 1 (13G) Jan.,	1913....The Story of an Ontario School Garden.
No. 2 (13F) Jan.,	1913....Agriculture in the Schools of Ontario.
No. 3 (13H) Feb.,	1913....Suggestions and Helps for Teaching Agriculture and Carrying on School Gardening.
No. 4 (13I) Mar.,	1913....The Dominion Agricultural Instruction Act, etc.
No. 5 (13J) Mar.,	1913....The Carleton County Potato-Growing Contest, 1912.
No. 6 (13K) Apr.,	1913....School Improvement and Arbor Day.
No. 7 (13L) May,	1913....Signs of Progress in 1913.
No. 8 (13O) June,	1913....Nature Collections for Schools.
No. 9 (13P) Dec.,	1913....Rural Education Conferences, 1913.

Instruction Sheets

In addition to the circulars, bulletins, and charts, listed above, the *Schools' Division of the Experimental Union* sends *Instruction Sheets* with the planting material sent out for school gardening purposes. Those printed up to the present time deal with school experiments on vegetables and field crops and with the organization of Girls' Canning Clubs and Boys' Corn and Potato Clubs. Additional copies of these are sent free for pupils' use.

Loan Library

Arrangements are being made whereby teachers, trustees and others interested in the problems of rural life and education may secure loans of books, bulletins and magazine articles relating to such matters as *Consolidation, School Ground Improvement, School Decoration, Medical Inspection, School Fairs, Play and Play Equipment, Children's School Clubs, Parent's and Teachers' Associations, School Improvement Associations, Rural Problems and the School's Relation Thereto, The Problem of the Rural Church, Rural Economics, Progress of Agricultural Education in Other Countries.*

Sets of lantern slides dealing with the work of the Rural School will be available also for loaning to Teachers' Associations, Women's Institutes, Farmer's Clubs, and similar organizations.

Address the *Director of Elementary Agricultural Education, Ontario Agricultural College, Guelph.*

Ministry of Education, Ontario